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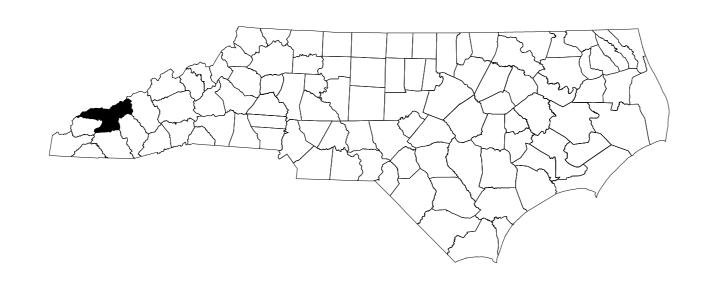
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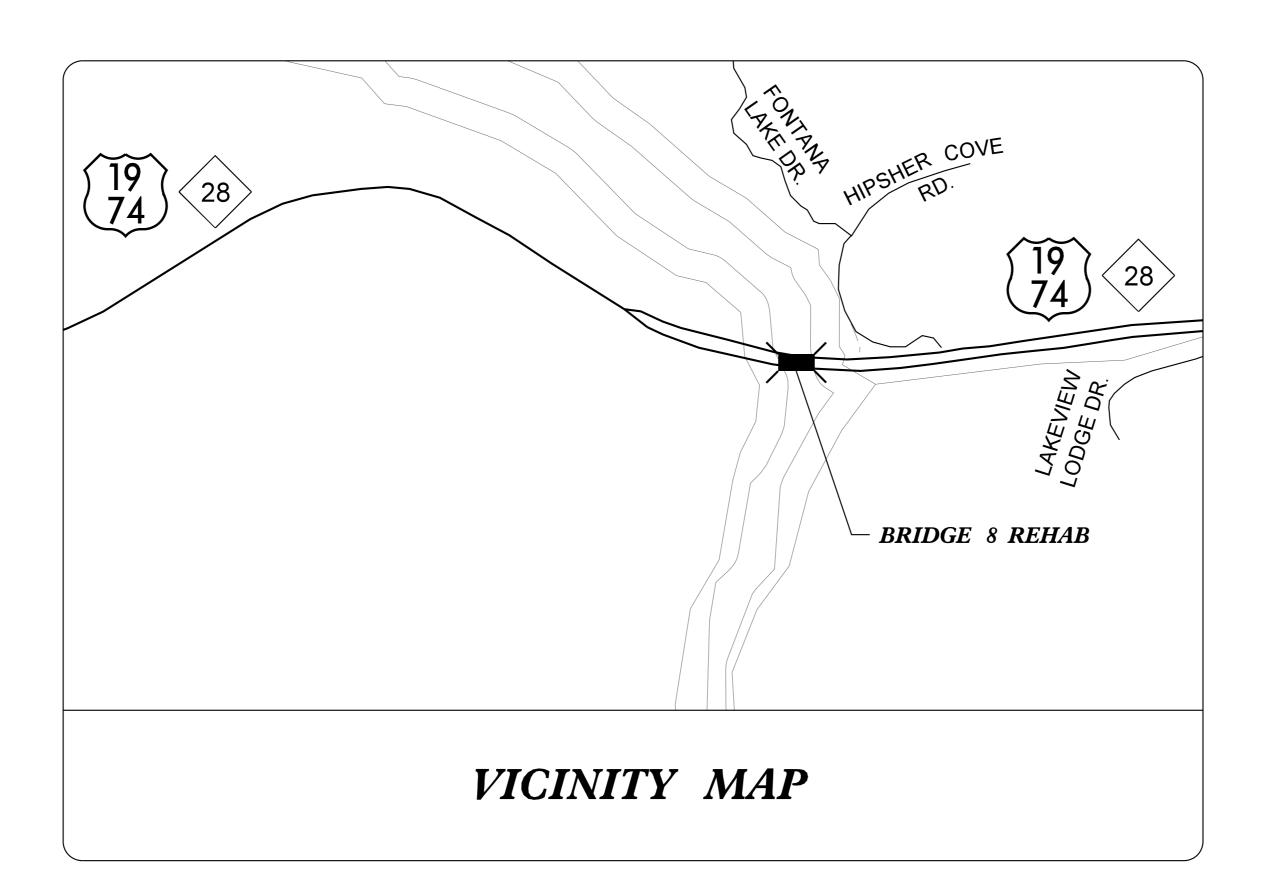
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STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

SWAIN COUNTY





INDEX OF SHEETS

SHEET NO.

<u>TITLE</u>

TITLE SHEET, AND INDEX OF SHEETS

TMP-1A

TMP-1

LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, AND TEMPORARY PAVEMENT MARKING

TMP-2 TO TMP-2A

GENERAL NOTES

TMP-3

PHASING

TMP-11 TO TMP-17

TMP-4 TO TMP-10

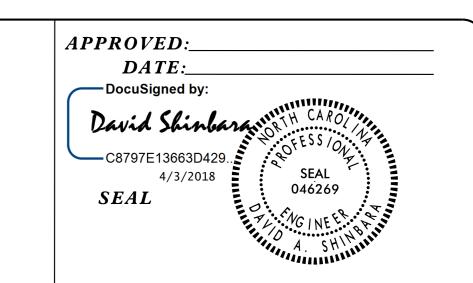
PHASE II DETAILS

PHASE I DETAILS

04/03/2018 DATE SUBMITTED SUBMITTAL: STAGING CONCEPT MIDPOINT PRE-FINAL X FINAL

Kimley » Horn

DAVID SHINBARA, P.E. TRAFFIC CONTROL PROJECT ENGINEER EVAN PARROTT, E.I. ___TRAFFIC CONTROL PROJECT DESIGN ENGINEER



SHEET NO.

TMP - 1

SBP

PROJ. REFERENCE NO. SHEET NO. 15BPR.9 TMP-1A

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" -PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANAUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE		
1101.01	WORK ZONE ADVANCE WARNING SIGNS		
1101.02	TEMPORARY LANE CLOSURES		
1101.03	TEMPORARY ROAD CLOSURES		
1101.04	TEMPORARY SHOULDER CLOSURES		
1101.05	WORK ZONE VEHICLE ACCESSES		
1101.11	TRAFFIC CONTROL DESIGN TABLES		
1110.01	STATIONARY WORK ZONE SIGNS		
1110.02	PORTABLE WORK ZONE SIGNS		
1115.01	115.01 FLASHING ARROW BOARDS		
1130.01	DRUMS		
1135.01	CONES		
1145.01	BARRICADES		
1150.01	FLAGGING DEVICES		
1160.01	TEMPORARY CRASH CUSHION		
1165.01	TRUCK MOUNTED IMPACT ATTENUATOR		
1170.01	POSITIVE PROTECTION		
1180.01	SKINNY-DRUM		
1205.01	PAVEMENT MARKINGS - LINE TYPES & OFFSETS		
1205.02	PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS		
1205.04	PAVEMENT MARKINGS - INTERSECTIONS		
1205.05	PAVEMENT MARKINGS - TURN LANES		
1205.06	PAVEMENT MARKINGS - LANE DROPS		
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS		
1205.12	PAVEMENT MARKINGS - BRIDGES		
1250.01	PAVEMENT MARKER SPACING		
1251.01	RAISED PAVEMENT MARKERS - (TEMPORARY & PERMANENT)		
1253.01	SNOWPLOWABLE RAISED PAVEMENT MARKERS		
1261.01	GUARDRAIL & BARRIER DELINEATOR SPACING		
1261.02	GUARDRAIL & BARRIER DELINEATOR TYPES		
1262.01	GUARDRAIL END DELINEATION		
1264.01	OBJECT MARKERS		
1264.02	PLACEMENT OF OBJECT MARKERS		

LEGEND

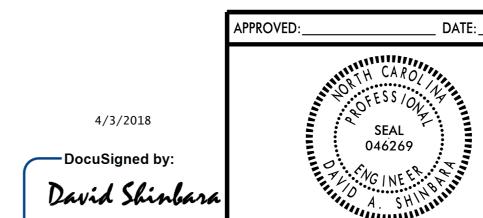
TEMPORARY PAVEMENT MARKING

PAVEMENT MARKING LINES PA - PAINT (4" WHITE, 2X) PB - PAINT (4" YELLOW,2X) **EDGELINE** PC - PAINT (4" WHITE, 2X) 10' SKIP PD - PAINT (4" WHITE, 2X) 3'-9'/SP MINISKIP PE - PAINT (4" WHITE, 2X) SOLID LANE LINE PF - PAINT (4" YELLOW, 2X) 10' SKIP PH - PAINT (4" YELLOW, 2X) SINGLE CENTER LINE PI - PAINT (4" YELLOW, 2X) DOUBLE CENTER LINE

PAVEMENT MARKING SYMBOLS QA - PAINT 2X (LEFT TURN ARROW) QB - PAINT 2X (RIGHT TURN ARROW)

P2 - PAINT (24" WHITE, 2X) STOPBAR

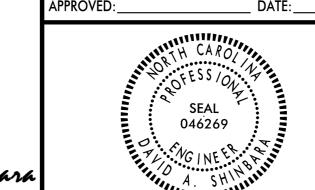
Kimley » Horn





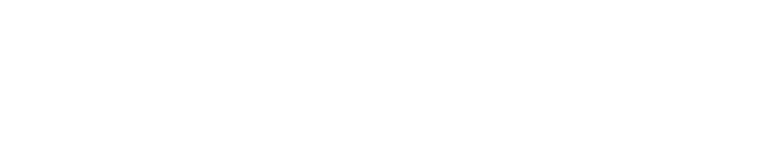
ROADWAY STANDARD DRAWINGS & LEGEND

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BARRICADE (TYPE III) DRUM

SKINNY DRUM

TUBULAR MARKER TEMPORARY CRASH CUSHION FLASHING ARROW PANEL (TYPE C) FLAGGER LAW ENFORCEMENT TRUCK MOUNTED IMPACT ATTENUATOR (TMIA) CHANGEABLE MESSAGE SIGN TEMPORARY SIGNING PORTABLE SIGN STATIONARY SIGN STATIONARY OR PORTABLE SIGN

SIGNALS EXISTING

GENERAL

DIRECTION OF TRAFFIC FLOW

— PROPOSED PVMT.

TRAFFIC CONTROL DEVICES

WORK AREA

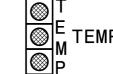
REMOVAL

----- EXIST. PVMT.

NORTH ARROW

DIRECTION OF PEDESTRIAN TRAFFIC FLOW





PAVEMENT MARKINGS

EXISTING LINES ——TEMPORARY LINES

PAVEMENT MARKERS

CRYSTAL/CRYSTAL

CRYSTAL/RED YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

PAVEMENT MARKING SYMBOLS

MANAGEMENT STRATEGIES

THE REHABILITATION OF BRIDGE 8600008 WILL OCCUR USING TEMPORARY TRAFFIC PATTERNS AND MEDIAN CROSSOVERS TO MAINTAIN TWO WAY TRAFFIC ALONG US-74 WHILE WORK IS BEING PERFORMED IN TWO PRIMARY TRAFFIC CONTROL PHASES.

GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME

DAY AND TIME RESTRICTIONS

US-74

MONDAY THRU SUNDAY 6:00 A.M. TO 9:00 A.M. AND 4:00 P.M. TO 7:00 P.M.

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME

US-74

HOLIDAY

- 1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- 2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31st TO 7:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 7:00 P.M. THE FOLLOWING TUESDAY.
- 3. FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.
- 4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.
- 5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.

PROJ. REFERENCE NO. SHEET NO. 15BPR.9 TMP-2

TIME RESTRICTIONS (CONT.)

- 6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 7:00 P.M. TUESDAY.
- 7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 7:00 P.M. MONDAY.
- 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 8:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
- C) DO NOT CLOSE ROADS AS FOLLOWS:

ROAD NAME DAY AND TIME RESTRICTIONS

US-74 ANYTIME

D) DO NOT STOP TRAFFIC AS FOLLOWS:

US-74

DAY AND TIME DURATION AND RESTRICTIONS OPERATION

US-74 MONDAY THRU SUNDAY 6:00 A.M. TO 9:00 A.M.
AND
4:00 P.M. TO 7:00 P.M.

E) DO NOT CONDUCT SINGLE VEHICLE HAULING AS FOLLOWS;

ROAD NAME DAY AND TIME RESTRICTIONS

MONDAY THRU SUNDAY 6:00 A.M. TO 9:00 A.M.

> AND 4:00 P.M. TO 7:00 P.M.

G) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER

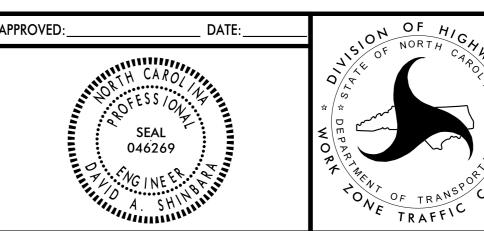
LANE AND SHOULDER CLOSURE REQUIREMENTS

H) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

Kimley» Horn

David Shinbara

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TRANSPORTATION
OPERATIONS
PLAN

ROJ. REFERENCE NO.	SHEET NO.
5BPR.9	TMP-2A

GENERAL NOTES (CONT.)

LANE AND SHOULDER CLOSURE REQUIREMENTS (CONT.)

I) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

- J) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- K) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

PAVEMENT EDGE DROP OFF REQUIREMENTS

M) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

N) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

TRAFFIC BARRIER

P) INSTALL TEMPORARY BARRIER ACCORDING TO THE TRANSPORTATION MANAGEMENT PLANS A MAXIMUM OF TWO (2) WEEKS PRIOR TO BEGINNING WORK IN ANY LOCATION. ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION PROCEED IN A CONTINUOUS MANNER TO COMPLETE THE PROPOSED WORK IN THAT LOCATION UNLESS OTHERWISE STATED IN THE TRANSPORTATION MANAGEMENT PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE.

ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION AND NO WORK IS PERFORMED BEHIND THE TEMPORARY BARRIER FOR A PERIOD LONGER THAN TWO (2) MONTHS, REMOVE / RESET TEMPORARY BARRIER AT NO COST TO THE DEPARTMENT UNLESS OTHERWISE STATED IN THE TRANSPORTATION MANAGEMENT PLANS, TEMPORARY BARRIER IS PROTECTING A HAZARD, OR AS DIRECTED BY THE ENGINEER.

INSTALL TEMPORARY BARRIER WITH THE TRAFFIC FLOW BEGINNING WITH THE UPSTREAM SIDE OF TRAFFIC. REMOVE TEMPORARY BARRIER AGAINST THE TRAFFIC FLOW BEGINNING WITH THE DOWNSTREAM SIDE OF TRAFFIC.

INSTALL AND SPACE DRUMS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH) TO CLOSE OR KEEP THE SECTION OF THE ROADWAY CLOSED UNTIL THE TEMPORARY BARRIER CAN BE PLACED OR AFTER THE TEMPORARY BARRIER IS REMOVED.

TRAFFIC BARRIER (CONT.)

Q) PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER AT ALL TIMES DURING THE INSTALLATION AND REMOVAL OF THE BARRIER BY EITHER A TRUCK MOUNTED ATTENUATOR (MAXIMUM 72 HOURS) OR A TEMPORARY CRASH CUSHION.

PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER FROM ONCOMING TRAFFIC AT ALL TIMES BY A TEMPORARY CRASH CUSHION UNLESS THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER IS OFFSET FROM ONCOMING TRAFFIC AS FOLLOWS OR AS SHOWN IN THE PLANS: (SEE ALSO 1101.05)

POSTED SPEED LIMIT MINIMUM OFFSET

40 OR LESS 15 FT

45 - 50 20 FT

55 25 FT

60 MPH or HIGHER 30 FT

TRAFFIC CONTROL DEVICES

R) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

PAVEMENT MARKINGS AND MARKERS

S) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAMEMARKINGMARKERALL ROADSPAINTTEMPORARY RAISED

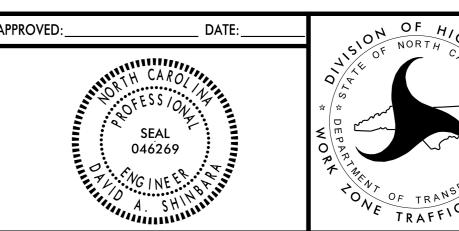
- T) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.
- U) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- V) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

Kimley » Horn

DocuSigned by:

David Shinbara

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TRANSPORTATION
OPERATIONS
PLAN

PROJ. REFERENCE NO.	SHEET NO.
15BPR.9	TMP-3

CONSTRUCTION PHASING

PHASE 1

- STEP 1: PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHALL INSTALL ADVANCE WARNING SIGNS IN ACCORDANCE WITH RSD 1101.01 SHEET 2 OF 3
- STEP 2: USING RSD 1101.02 SHEETS 3 AND 7 OF 14 AS NEEDED, REMOVE EXISTING CONFLICTING
 PAVEMENT MARKINGS AND INSTALL THE FOLLOWING AS SHOWN ON SHEETS TMP-04 THRU TMP-10:
 - TRAFFIC CONTROL DEVICES
 - STATIONARY WORK ZONE SIGNS
 - WEDGING AS REQUIRED FOR SMOOTH TRANSITIONS AND POSITIVE DRAINAGE
 - TEMPORARY PAINT PAVEMENT MARKINGS
- STEP 3: SHIFT TRAFFIC ONTO TEMPORARY PATTERN; INSTALL PORTABLE CONCRETE BARRIER AS SHOWN ON SHEETS TMP-05 THRU TMP-10 USING RSD 1101.02 SHEET 1 OF 14 FOR TEMPORARY LANE CLOSURES
- STEP 4: AWAY FROM TRAFFIC PERFORM BRIDGE MAINTENANCE RIGHT OF -L- IN ACCORDANCE WITH BRIDGE PLANS AND AS SHOWN ON SHEETS TMP-07 AND TMP-08

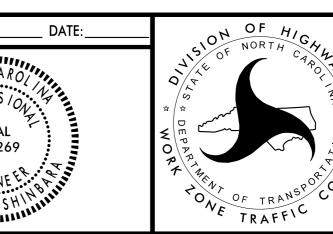
PHASE 2

- STEP 1: USING RSD 1101.02 SHEET 1 OF 14 AS NEEDED, REMOVE CONFLICTING PAVEMENT MARKINGS AND INSTALL THE FOLLOWING AS SHOWN ON SHEETS TMP-11 THRU TMP-17:
 - TRAFFIC CONTROL DEVICES
 - STATIONARY WORK ZONE SIGNS
 - WEDGING AS REQUIRED FOR SMOOTH TRANSITIONS AND POSITIVE DRAINAGE
 - TEMPORARY PAINT PAVEMENT MARKINGS
- STEP 2: SHIFT TRAFFIC ONTO TEMPORARY PATTERN; REMOVE AND RESET PORTABLE CONCRETE BARRIER AS SHOWN ON SHEETS TMP-12 THRU TMP-16 USING RSD 1101.02 SHEET 1 OF 14 FOR TEMPORARY LANE CLOSURES
- STEP 3: AWAY FROM TRAFFIC, PERFORM BRIDGE MAINTENANCE LEFT OF -L- IN ACCORDANCE WITH BRIDGE PLANS AND AS SHOWN ON SHEETS TMP-14 AND TMP-15
- STEP 4: UPON COMPLETION OF WORK, USING RSD 1101.02 SHEET 1 OF 14 AS NEEDED, PERFORM THE FOLLOWING:
 - REMOVE EXISTING CONFLICTING PAVEMENT MARKINGS
 - RESURFACE, MILL, AND OVERLAY AS REQUIRED FOR SMOOTH TRANSITIONS AND POSITIVE DRAINAGE
 - INSTALL FINAL PAVEMENT MARKINGS
 - REMOVE ALL TRAFFIC CONTROL DEVICES AND PLACE TRAFFIC ONTO FINAL PATTERN

Kimley»Horn

David Shinbara

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PHASING

